

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 0 872 919 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
28.03.2001 Bulletin 2001/13

(51) Int Cl.7: **H01R 23/70**

(43) Date of publication A2:
21.10.1998 Bulletin 1998/43

(21) Application number: **98650023.9**

(22) Date of filing: **15.04.1998**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Shimizu, Shinji**
Shinagawa-ku, Tokyo (JP)

(74) Representative: **Coyle, Philip Aidan et al**
F. R. KELLY & CO.
27 Clyde Road
Ballsbridge
Dublin 4 (IE)

(30) Priority: **18.04.1997 JP 11507497**

(71) Applicant: **HIROSE ELECTRIC CO., LTD.**
Shinagawa-ku Tokyo (JP)

(54) Circuit board electrical connector

(57) A circuit board electrical connector for a circuit board (3) having an attaching opening (3A), which comprises a housing (2); an attaching leg (5) having a me-

tallic surface and projecting downwardly from the housing into the attaching opening; and a solder retention area (5A) in the attaching leg so that solder flows into an upper portion of the attaching opening.

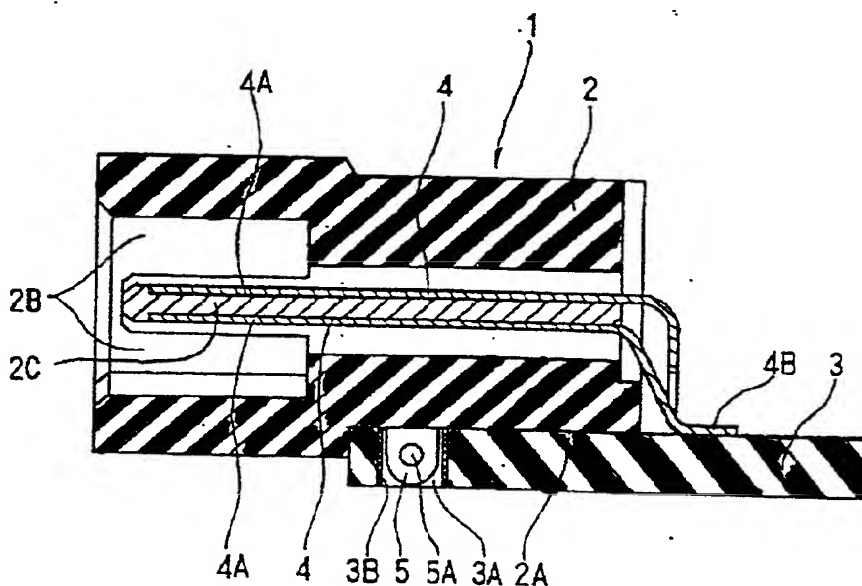


FIG. 1

EP 0 872 919 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 98 65 0023

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	EP 0 147 039 A (AMP INC) 3 July 1985 (1985-07-03) * abstract; claims; figures *	1-4	H01R23/70
A	WO 94 23474 A (SHU SHINZUI ;BERG TECH INC (US)) 13 October 1994 (1994-10-13) * abstract; claims; figures *	1-4	
A	DE 37 23 347 A (HARTING ELEKTRONIK GMBH) 26 January 1989 (1989-01-26) * abstract; claims; figures *	1-4	
A	US 5 249 983 A (HIRAI YUJI) 5 October 1993 (1993-10-05) * figures 5A,5B,9B *	1-4	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			H01R
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 6 February 2001	Examiner Durand, F
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03/02 (P44001)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 65 0023

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

06-02-2001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0147039 A	03-07-1985	BR 8406322 A	08-10-1985
		DE 8436267 U	14-03-1985
		DK 594284 A	14-06-1985
		ES 282796 U	01-05-1985
		FI 844437 A	14-06-1985
		JP 2028236 B	22-06-1990
		JP 60140688 A	25-07-1985
		NO 844464 A	14-06-1985
		US 4583807 A	22-04-1986
WO 9423474 A	13-10-1994	DE 69418867 D	08-07-1999
		DE 69418867 T	07-10-1999
		EP 0692149 A	17-01-1996
		SG 48095 A	17-04-1998
		US 5616035 A	01-04-1997
DE 3723347 A	26-01-1989	EP 0290827 A	17-11-1988
US 5249983 A	05-10-1993	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82